

Serial No. **10/649,954**

Docket No. **P-0533**

Amdt. dated November 18, 2005

Reply to Office Action of August 18, 2005

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (Canceled)
5. (Canceled)
6. (Canceled)
7. (Canceled)
8. (Currently Amended) An active antenna system of a radio communication terminal comprising:

an ~~directional~~ antenna that transmits and receives an ~~RF~~ communication signal to and from a ~~base station~~ communication node;

a sending end amplifying/filtering unit that amplifies and filters an ~~RF~~ communication signal to be transmitted through a duplexer;

a receiving end amplifying/filtering unit that amplifies and filters the ~~RF~~ communication signal received through the duplexer;

a closed loop control circuit that generates a control signal according to power of a ~~transmission RF~~ communication signal outputted from a sending end amplifying/filtering unit; and

a bias unit that separates the ~~RF~~ communication signal and a ~~DC~~ power transmitted from a radio communication terminal through a transmission line,

wherein the receiving end amplifying/filtering unit includes a variable amplifier that amplifies a reception ~~RF~~ communication signal as much as a variable gain according to a control signal, and

wherein the closed loop control circuit comprises:

a coupling unit that branches a transmission output from a final end of the sending end amplifying/filtering unit; and

a detection controller that generates a control signal according to a strength of power of the branched transmission output and applying the control signal to the variable gain amplifier.

9. (Currently Amended) The system of claim 8, wherein the duplexer separates a transmission path and a reception path of a ~~n-RF~~ communication signal at both ends of the sending end amplifying/filtering unit and the receiving end amplifying/filtering unit.

10. (Currently Amended) The system of claim 8, wherein the sending end amplifying/filtering unit and the receiving end amplifying/filtering unit comprise, respectively:

a plurality of amplifiers that amplifies a transmission ~~RF~~ signal and a reception ~~RF~~ signal;

a filter that filters each signal between amplifiers; and

a power supply unit that supplies power to each amplifier.

11. (Currently Amended) The system of claim 10, wherein the power supply unit supplies a ~~DC~~ power transmitted from the bias unit.

12. (Canceled)

13. (Canceled)

14. (Previously Presented) The system of claim 8, wherein the control signal makes

the transmission output and the gain of the variable gain amplifier to be proportional to each other.

15. (Currently Amended) An antenna system of a radio communication terminal comprising:

an ~~directional~~ antenna that transmits and receives an ~~RF~~ communication signal to and from a ~~base station~~ communication node;

a sending end amplifying/filtering unit that amplifies and filters a transmission ~~RF~~ signal;

a receiving end amplifying/filtering unit that amplifies and filters a reception ~~RF~~ signal;

and

a bias unit that separates an ~~RF~~ communication signal, a ~~DC~~ power and a control signal transmitted from the radio communication terminal through a transmission line,

wherein the control signal is applied to at least one of the sending and receiving end amplifying/filtering units to adjust a corresponding amplifier gain.

16. (Previously Presented) The system of claim 15, wherein the bias unit includes a band pass filter that passes a control signal among signals transmitted through the transmission line.

17. (Original) The system of claim 15, wherein the sending end amplifying/filtering unit and the receiving end amplifying/filtering unit are connected to a duplexer separating a transmission path and a reception path at both ends.

18. (Currently Amended) The system of claim 15, wherein the sending end amplifying/filtering unit and the receiving end amplifying/filtering unit comprise, respectively:

a plurality of amplifiers that amplify a transmission ~~RF~~ signal and a reception ~~RF~~ signal;

a filter that filters each signal between amplifiers; and

a power supply unit that supplies power to each amplifier.

19. (Currently Amended) The system of claim 18, wherein the power supply unit supplies a ~~DC~~ power transmitted from the bias unit to the amplifier.

20. (Currently Amended) The system of claim 15, wherein at least one of the sending end amplifying/filtering unit and the receiving end amplifying/filtering unit include a variable gain amplifier that amplifies a reception ~~RF~~ signal as much as a variable gain according to a control signal.

21. (Currently Amended) The system of claim 3 ~~8~~, wherein the bias unit further comprises a filter that passes a signal meeting a predetermined filtering criteria.

22. (Previously Presented) An antenna system of a radio communication terminal comprising:

an antenna that transmits and receives a communication signal to and from a communication node through a communication link; and

an amplifying unit integrated on a single board together with the antenna and that amplifies and filters the communication signal.

23. (Canceled)

24. (Currently Amended) A radio communication method comprising:

transmitting and receiving an ~~RF~~ communication signal in an ~~directional~~ antenna to and from a communication node;

amplifying and filtering an ~~RF~~ communication signal in a sending end amplifying/filtering unit to be transmitted through a duplexer;

amplifying and filtering the ~~RF~~ communication signals in a receiving end amplifying filtering unit through the duplexer;

generating a control signal according to power of a transmission ~~RF~~

communication signal outputted from the sending end amplifying/filtering unit; and

separating the RF communication signal and a DC power transmitted from a radio communication terminal through a transmission line,

wherein generating the control signal comprises:

branching a transmission output from a final end of the sending end amplifying/filtering unit; and

generating the control signal according to a strength of power of the branched transmission output and variably controlling a gain of the receiving end amplifying/filtering unit based on the generated control signal.

25. (Currently Amended) The system of claim 8, wherein the ~~directional~~ antenna, the sending and receiving end amplifying and filtering units, the closed loop control circuit and the bias unit are mounted together on a same board.

26. (Currently Amended) The system of claim 15, wherein the ~~directional~~ antenna, the sending and receiving end amplifying and filtering units, the closed loop control circuit and the bias unit are mounted together on a same board.